

nsock to STN

Welcome to STN International! Enter x:X

LOGINID:SSPTASMR1614

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

|      |    |        |  |
|------|----|--------|--|
| NEWS | 1  |        | Web Page for STN Seminar Schedule - N. America   |
| NEWS | 2  | DEC 01 | ChemPort single article sales feature unavailable  |
| NEWS | 3  | JUN 01 | CAS REGISTRY Source of Registration (SR) searching enhanced on STN                             |
| NEWS | 4  | JUN 26 | NUTRACEUT and PHARMAML no longer updated   |
| NEWS | 5  | JUN 29 | IMSCOPROFILE now reloaded monthly  |
| NEWS | 6  | JUN 29 | EPFULL adds Simultaneous Left and Right Truncation (SLART) to AB, MCLM, and TI fields          |
| NEWS | 7  | JUL 09 | PATDPAFULL adds Simultaneous Left and Right Truncation (SLART) to AB, CLM, MCLM, and TI fields |
| NEWS | 8  | JUL 14 | USGENE enhances coverage of patent sequence location (PSL) data                                |
| NEWS | 9  | JUL 27 | CA/CAPLUS enhanced with new citing references  |
| NEWS | 10 | JUL 16 | GBFULL adds patent backfile data to 1855   |
| NEWS | 11 | JUL 21 | USGENE adds bibliographic and sequence information   |
| NEWS | 12 | JUL 28 | EPFULL adds first-page images and applicant-cited references                                   |
| NEWS | 13 | JUL 28 | INPADOCDB and INPAFAMDB add Russian legal status data  |
| NEWS | 14 | AUG 10 | Time limit for inactive STN sessions doubles to 40 minutes                                     |
| NEWS | 15 | AUG 18 | COMPENDEX indexing changed for the Corporate Source (CS) field                                 |
| NEWS | 16 | AUG 24 | ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced   |
| NEWS | 17 | AUG 24 | CA/CAPLUS enhanced with legal status information for U.S. patents                              |
| NEWS | 18 | SEP 09 | 50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY                                |
| NEWS | 19 | SEP 11 | WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus                                  |

NEWS EXPRESS MAY 26 09 CURRENT WINDOWS VERSION IS V8.4,  
AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN customer agreement. This agreement limits use to scientific research. Use for software development or design, implementation of commercial gateways, or use of CAS and STN data in the building of commercial products is prohibited and may result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:54:44 ON 01 OCT 2009

=> file reg

| COST IN U.S. DOLLARS | SINCE FILE<br>ENTRY | TOTAL<br>SESSION |
|----------------------|---------------------|------------------|
| FULL ESTIMATED COST  | 0.22                | 0.22             |

FILE 'REGISTRY' ENTERED AT 10:54:55 ON 01 OCT 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 29 SEP 2009 HIGHEST RN 1186580-18-6

DICTIONARY FILE UPDATES: 29 SEP 2009 HIGHEST RN 1186580-18-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\STNEXP\Queries\10590445.str

L1 STRUCTURE UPLOADED

=> s l1 sss full

FULL SEARCH INITIATED 10:55:17 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 24 TO ITERATE

100.0% PROCESSED 24 ITERATIONS

1 ANSWERS

SEARCH TIME: 00.00.01

L2 1 SEA SSS FUL L1

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE<br>ENTRY | TOTAL<br>SESSION |
|----------------------|---------------------|------------------|
| FULL ESTIMATED COST  | 185.88              | 186.10           |

FILE 'CAPLUS' ENTERED AT 10:55:22 ON 01 OCT 2009

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is  
held by the publishers listed in the PUBLISHER (PB) field (available

for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 1 Oct 2009 VOL 151 ISS 14  
FILE LAST UPDATED: 30 Sep 2009 (20090930/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAPLUS family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

=> s 12

L3 2 L2

=> d l3 1-2 ibib ab hitstr

L3 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2007:1242575 CAPLUS  
DOCUMENT NUMBER: 147:502363  
TITLE: Preparation of diarylthiohydantoins as androgen receptor antagonists for the treatment of hormone refractory prostate cancer  
INVENTOR(S): Jung, Michael; Yoo, Dongwon; Sawyers, Charles L.; Tran, Chris  
PATENT ASSIGNEE(S): Regents of the University of California, USA  
SOURCE: U.S. Pat. Appl. Publ., 63pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| US 20070254933   | A1   | 20071101 | US 2007-730168  | 20070329 |
| US 20080139634   | A2   | 20080612 |                 |          |
| AU 2007245022  | A1   | 20071108 | AU 2007-245022  | 20070329 |
| CA 2648139   | A1   | 20071108 | CA 2007-2648139 | 20070329 |
| WO 2007127010  | A2   | 20071108 | WO 2007-US7854  | 20070329 |
| WO 2007127010  | A9   | 20080522 |                 |          |
| WO 2007127010  | A3   | 20080731 |                 |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, |      |          |                 |          |

GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

EP 2013187 A2 20090114 EP 2007-754380 20070329

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS

JP 2009531449 T 20090903 JP 2009-503016 20070329

MX 2008012492 A 20081212 MX 2008-12492 20080929

NO 2008004480 A 20081219 NO 2008-4480 20081023

KR 2009009215 A 20090122 KR 2008-726364 20081028

IN 2008DN09073 A 20090320 IN 2008-DN9073 20081029

CN 101460467 A 20090617 CN 2007-80020099 20081201

PRIORITY APPLN. INFO.: US 2006-786837P P 20060329

WO 2007-US7854 W 20070329

OTHER SOURCE(S): MARPAT 147:502363

AB Title compds. I [wherein R1, R2 = Me; R1 and R2 together with the carbon to which they are linked form a 4/5-membered cycloalkyl; R3 = carbamoyl, alkylcarbamoyl, carbamoylalkyl, etc.; R4 = H or F] were prepared as androgen receptor antagonists. For instance, II was synthesized in 25% yield by cyclization of 4-isothiocyanato-2-trifluoromethylbenzonitrile (preparation given) with N-methyl-2-4-[(1,1-dimethylcyanomethyl)amino]benzamide (preparation given). Extensive biol. tests of I and related compds. were carried out, and their relationship with structures was reported. The invented compds. and their pharmaceutical compns. are useful for the treatment of hormone refractory prostate cancer.

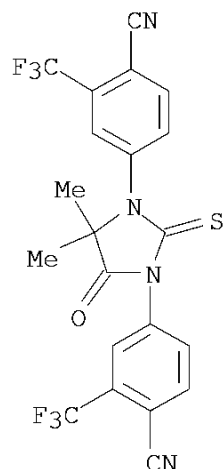
IT 915087-60-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of diarylthiohydantoins as androgen receptor antagonists for treatment of hormone refractory prostate cancer)

RN 915087-60-4 CAPLUS

CN Benzonitrile, 4,4'-(4,4-dimethyl-5-oxo-2-thioxo-1,3-imidazolidinediyl)bis[2-(trifluoromethyl)- (CA INDEX NAME)



L3 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1228845 CAPLUS

DOCUMENT NUMBER: 145:505452

TITLE: Preparation of diarylhydantoin compounds as androgen receptor antagonists useful against hormone refractory prostate cancer

INVENTOR(S): Sawyers, Charles L.; Jung, Michael E.; Chen, Charlie D.; Ouk, Samedy; Welsbie, Derek; Tran, Chris; Wongvipat, John; Yoo, Dongwon

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: PCT Int. Appl., 166pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.     | KIND   | DATE     | APPLICATION NO.  | DATE     |
|----------------|--|----------|------------------|----------|
| WO 2006124118  | A1   | 20061123 | WO 2006-US11417  | 20060329 |
| W:             | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                  |          |
| RW:            | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM   |          |                  |          |
| AU 2006248109  | A1   | 20061123 | AU 2006-248109   | 20060329 |
| CA 2608436     | A1   | 20061123 | CA 2006-2608436  | 20060329 |
| EP 1893196     | A1   | 20080305 | EP 2006-748863   | 20060329 |
| R:             | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU   |          |                  |          |
| JP 2008540523  | T  | 20081120 | JP 2008-511114   | 20060329 |
| US 20070004753 | A1   | 20070104 | US 2006-433829   | 20060515 |
| MX 2007014132  | A  | 20080409 | MX 2007-14132    | 20071112 |
| NO 2007006401  | A  | 20080208 | NO 2007-6401     | 20071212 |
| KR 2008014039  | A  | 20080213 | KR 2007-729188   | 20071213 |
| IN 2007DN09668 | A  | 20080620 | IN 2007-DN9668   | 20071213 |
| CN 101222922   | A  | 20080716 | CN 2006-80025545 | 20080114 |

PRIORITY APPLN. INFO.:

|                 |   |          |
|-----------------|---|----------|
| US 2005-680835P | P | 20050513 |
| US 2005-750351P | P | 20051215 |
| US 2006-756552P | P | 20060106 |
| US 2006-785978P | P | 20060327 |
| WO 2006-US11417 | W | 20060329 |

OTHER SOURCE(S): MARPAT 145:505452

AB The present invention relates to diarylhydantoin compds., including diarylthiohydantoins (shown as I; variables defined below; e.g. N-methyl-4-[7-(4-cyano-3-trifluoromethylphenyl)-8-oxo-6-thioxo-5,7-diazaspiro[3.4]octan-5-yl]-2-fluorobenzamide (shown as II)), and methods for synthesizing them and using them in the treatment of hormone refractory prostate cancer. For I: X = trifluoromethyl and iodo; W = O and NR5; R5 = H, Me, and -C(:D)-E-G, (D is S or O and E is N or O and G is (un)substituted alkyl or aryl, or D is S or O and E-G together are C1-C4 lower alkyl); R1 and R2 together comprise eight or fewer C atoms and =

(un)substituted alkyl including haloalkyl, and, together with the C to which they are linked, (un)substituted cycloalkyl; R3 = H, halogen, Me, C1-C4 alkoxy, formyl, haloacetoxy, trifluoromethyl, cyano, nitro, hydroxy, Ph, amino, methylcarbamoyl, methoxycarbonyl, acetamido, methanesulfonamino, methanesulfonyl, 4-methanesulfonyl-1-piperazinyl, piperazinyl, and C1-C6 alkyl or alkenyl (un)substituted with hydroxy, methoxycarbonyl, cyano, amino, amido, nitro, (un)substituted carbamoyl including methylcarbamoyl, dimethylcarbamoyl, and hydroxyethylcarbamoyl; R3 is not methylaminomethyl or dimethylaminomethyl; and R4 = H, halogen, alkyl, and haloalkyl. Methods of preparation are claimed and preps. and/or characterization data for .apprx.60 examples of I are included. For example, II was prepared in 4 steps (91, 94, 89, 57 % yields, resp.) involving intermediates N-methyl-2-fluoro-4-nitrobenzamide, N-methyl-2-fluoro-4-aminobenzamide, and N-methyl-4-(1-cyanocyclobutylamino)-2-fluorobenzamide; the last step comprises cyclization of 4-isothiocyanato-2-trifluoromethylbenzonitrile (preparation given) with N-methyl-4-(1-cyanocyclobutylamino)-2-fluorobenzamide in DMF under microwave irradiation at 80° for 16 h followed by refluxing for 3 h after addition of MeOH and 2 N HCl.

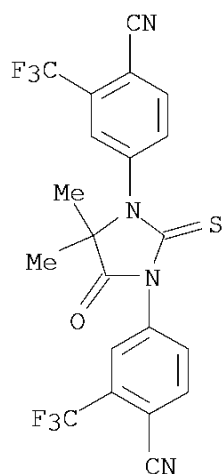
IT 915087-60-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of diarylthiohydantoin compds. as androgen receptor antagonists useful against hormone refractory prostate cancer)

RN 915087-60-4 CAPLUS

CN Benzonitrile, 4,4'-(4,4-dimethyl-5-oxo-2-thioxo-1,3-imidazolidinediyl)bis[2-(trifluoromethyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)  
 REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=>

=> s diarylthiohydantoin

2 DIARYLTHIOHYDANTOIN  
 6 DIARYLTHIOHYDANTOINS

L4

6 DIARYLTHIOHYDANTOIN  
 (DIARYLTHIOHYDANTOIN OR DIARYLTHIOHYDANTOINS)

=> d 14 1-6 ibib ab

L4 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:543704 CAPLUS

DOCUMENT NUMBER: 151:115902

TITLE: Development of a Second-Generation Antiandrogen for Treatment of Advanced Prostate Cancer

AUTHOR(S): Tran, Chris; Ouk, Samedy; Clegg, Nicola J.; Chen, Yu; Watson, Philip A.; Arora, Vivek; Wongvipat, John; Smith-Jones, Peter M.; Yoo, Dongwon; Kwon, Andrew; Wasielewska, Teresa; Welsbie, Derek; Chen, Charlie Degui; Higano, Celestia S.; Beer, Tomasz M.; Hung, David T.; Scher, Howard I.; Jung, Michael E.; Sawyers, Charles L.

CORPORATE SOURCE: Human Oncology and Pathogenesis Program, Memorial Sloan-Kettering Cancer Center, New York, NY, 10065, USA

SOURCE: Science (Washington, DC, United States) (2009), 324(5928), 787-790

CODEN: SCIEAS; ISSN: 0036-8075

PUBLISHER: American Association for the Advancement of Science

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Metastatic prostate cancer is treated with drugs that antagonize androgen action, but most patients progress to a more aggressive form of the disease called castration-resistant prostate cancer, driven by elevated expression of the androgen receptor. Here we characterize the diarylthiohydantoin RD162 and MDV3100, two compds. optimized from a screen for nonsteroidal antiandrogens that retain activity in the setting of increased androgen receptor expression. Both compds. bind to the androgen receptor with greater relative affinity than the clin. used antiandrogen bicalutamide, reduce the efficiency of its nuclear translocation, and impair both DNA binding to androgen response elements and recruitment of coactivators. RD162 and MDV3100 are orally available and induce tumor regression in mouse models of castration-resistant human prostate cancer. Of the first 30 patients treated with MDV3100 in a Phase I/II clin. trial, 13 of 30 (43%) showed sustained declines (by >50%) in serum concns. of prostate-specific antigen, a biomarker of prostate cancer. These compds. thus appear to be promising candidates for treatment of advanced prostate cancer.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:950368 CAPLUS

TITLE: Rational drug design for the treatment of hormone refractory prostate cancer

AUTHOR(S): Jung, Michael E.

CORPORATE SOURCE: Department of Chemistry and Biochemistry, UCLA, Los Angeles, CA, 90095-1569, USA

SOURCE: Abstracts of Papers, 236th ACS National Meeting, Philadelphia, PA, United States, August 17-21, 2008 (2008), CARB-028. American Chemical Society: Washington, D. C.

CODEN: 69KXQ2

DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)

LANGUAGE: English

AB The switch from hormone sensitive to hormone refractory prostate cancer

involves a 3- to 5-fold upregulation of the androgen receptor (AR) but is still androgen dependent. Therefore to effectively treat hormone refractory prostate cancer, one requires much more potent androgen receptor antagonists than the ones currently available. A new class of potent androgen receptor antagonists was designed and prepared. Biol. data shows that these compds., diarylthiohydantoins, are extremely effective at inhibiting the growth of prostate cancer cells in which the AR has been overexpressed. A summary of the design, preparation, and biol. testing of these new AR antagonists, to include data on metabolism, distribution, and pharmacokinetics, will be presented. The lead compound, MDV3100, is now in Phase 1/2 clin. trials.

L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1242575 CAPLUS

DOCUMENT NUMBER: 147:502363

TITLE: Preparation of diarylthiohydantoins as androgen receptor antagonists for the treatment of hormone refractory prostate cancer

INVENTOR(S): Jung, Michael; Yoo, Dongwon; Sawyers, Charles L.; Tran, Chris

PATENT ASSIGNEE(S): Regents of the University of California, USA

SOURCE: U.S. Pat. Appl. Publ., 63pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE       |
|---|------|----------|------------------|------------|
| US 20070254933  | A1   | 20071101 | US 2007-730168   | 20070329   |
| US 20080139634  | A2   | 20080612 |                  |            |
| AU 2007245022   | A1   | 20071108 | AU 2007-245022   | 20070329   |
| CA 2648139  | A1   | 20071108 | CA 2007-2648139  | 20070329   |
| WO 2007127010   | A2   | 20071108 | WO 2007-US7854   | 20070329   |
| WO 2007127010   | A9   | 20080522 |                  |            |
| WO 2007127010   | A3   | 20080731 |                  |            |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW |      |          |                  |            |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA  |      |          |                  |            |
| EP 2013187  | A2   | 20090114 | EP 2007-754380   | 20070329   |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS   |      |          |                  |            |
| JP 2009531449   | T    | 20090903 | JP 2009-503016   | 20070329   |
| MX 2008012492   | A    | 20081212 | MX 2008-12492    | 20080929   |
| NO 2008004480   | A    | 20081219 | NO 2008-4480     | 20081023   |
| KR 2009009215   | A    | 20090122 | KR 2008-726364   | 20081028   |
| IN 2008DN09073  | A    | 20090320 | IN 2008-DN9073   | 20081029   |
| CN 101460467  | A    | 20090617 | CN 2007-80020099 | 20081201   |
| PRIORITY APPLN. INFO.:  |      |          | US 2006-786837P  | P 20060329 |
|   |      |          | WO 2007-US7854   | W 20070329 |



OTHER SOURCE(S): MARPAT 147:502363

AB Title compds. I [wherein R1, R2 = Me; R1 and R2 together with the carbon to which they are linked form a 4/5-membered cycloalkyl; R3 = carbamoyl, alkylcarbamoyl, carbamoylalkyl, etc.; R4 = H or F] were prepared as androgen receptor antagonists. For instance, II was synthesized in 25% yield by cyclization of 4-isothiocyanato-2-trifluoromethylbenzonitrile (preparation given) with N-methyl-2-4-[(1,1-dimethylcyanomethyl)amino]benzamide (preparation given). Extensive biol. tests of I and related compds. were carried out, and their relationship with structures was reported. The invented compds. and their pharmaceutical compns. are useful for the treatment of hormone refractory prostate cancer.

L4 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1228845 CAPLUS

DOCUMENT NUMBER: 145:505452

TITLE: Preparation of diarylhydantoin compounds as androgen receptor antagonists useful against hormone refractory prostate cancer

INVENTOR(S): Sawyers, Charles L.; Jung, Michael E.; Chen, Charlie D.; Ouk, Samedy; Welsbie, Derek; Tran, Chris; Wongvipat, John; Yoo, Dongwon

PATENT ASSIGNEE(S): The Regents of the University of California, USA

SOURCE: PCT Int. Appl., 166pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.             | KIND   | DATE     | APPLICATION NO.  | DATE       |
|------------------------|--|----------|------------------|------------|
| WO 2006124118          | A1   | 20061123 | WO 2006-US11417  | 20060329   |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |          |                  |            |
| RW:                    | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM   |          |                  |            |
| AU 2006248109          | A1   | 20061123 | AU 2006-248109   | 20060329   |
| CA 2608436             | A1   | 20061123 | CA 2006-2608436  | 20060329   |
| EP 1893196             | A1   | 20080305 | EP 2006-748863   | 20060329   |
| R:                     | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU   |          |                  |            |
| JP 2008540523          | T  | 20081120 | JP 2008-511114   | 20060329   |
| US 20070004753         | A1   | 20070104 | US 2006-433829   | 20060515   |
| MX 2007014132          | A  | 20080409 | MX 2007-14132    | 20071112   |
| NO 2007006401          | A  | 20080208 | NO 2007-6401     | 20071212   |
| KR 2008014039          | A  | 20080213 | KR 2007-729188   | 20071213   |
| IN 2007DN09668         | A  | 20080620 | IN 2007-DN9668   | 20071213   |
| CN 101222922           | A  | 20080716 | CN 2006-80025545 | 20080114   |
| PRIORITY APPLN. INFO.: |  |          | US 2005-680835P  | P 20050513 |
|                        |  |          | US 2005-750351P  | P 20051215 |
|                        |  |          | US 2006-756552P  | P 20060106 |
|                        |  |          | US 2006-785978P  | P 20060327 |

OTHER SOURCE(S): MARPAT 145:505452

AB The present invention relates to diarylthiohydantoin compds., including diarylthiohydantoins (shown as I; variables defined below; e.g. N-methyl-4-[7-(4-cyano-3-trifluoromethylphenyl)-8-oxo-6-thioxo-5,7-diazaspiro[3.4]octan-5-yl]-2-fluorobenzamide (shown as II)), and methods for synthesizing them and using them in the treatment of hormone refractory prostate cancer. For I: X = trifluoromethyl and iodo; W = O and NR5; R5 = H, Me, and -C(:D)-E-G, (D is S or O and E is N or O and G is (un)substituted alkyl or aryl, or D is S or O and E-G together are C1-C4 lower alkyl); R1 and R2 together comprise eight or fewer C atoms and = (un)substituted alkyl including haloalkyl, and, together with the C to which they are linked, (un)substituted cycloalkyl; R3 = H, halogen, Me, C1-C4 alkoxy, formyl, haloacetoxy, trifluoromethyl, cyano, nitro, hydroxy, Ph, amino, methylcarbamoyl, methoxycarbonyl, acetamido, methanesulfonamino, methanesulfonyl, 4-methanesulfonyl-1-piperazinyl, piperazinyl, and C1-C6 alkyl or alkenyl (un)substituted with hydroxy, methoxycarbonyl, cyano, amino, amido, nitro, (un)substituted carbamoyl including methylcarbamoyl, dimethylcarbamoyl, and hydroxyethylcarbamoyl; R3 is not methylaminomethyl or dimethylaminomethyl; and R4 = H, halogen, alkyl, and haloalkyl. Methods of preparation are claimed and preps. and/or characterization data for .apprx.60 examples of I are included. For example, II was prepared in 4 steps (91, 94, 89, 57 % yields, resp.) involving intermediates N-methyl-2-fluoro-4-nitrobenzamide, N-methyl-2-fluoro-4-aminobenzamide, and N-methyl-4-(1-cyanocyclobutylamino)-2-fluorobenzamide; the last step comprises cyclization of 4-isothiocyanato-2-trifluoromethylbenzonitrile (preparation given) with N-methyl-4-(1-cyanocyclobutylamino)-2-fluorobenzamide in DMF under microwave irradiation at 80° for 16 h followed by refluxing for 3 h after addition of MeOH and 2 N HCl.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1986:186354 CAPLUS

DOCUMENT NUMBER: 104:186354

ORIGINAL REFERENCE NO.: 104:29509a,29512a

TITLE: 5,5-Diaryl-2-thiohydantoins and 5,5-diaryl  
N3-substituted 2-thiohydantoins as potential  
hypolipidemic agents

AUTHOR(S): Tompkins, J. Ellsworth

CORPORATE SOURCE: Coll. Health Related Profess., State Univ. New York,  
Syracuse, NY, 13210, USA

SOURCE: Journal of Medicinal Chemistry (1986), 29(5), 855-9  
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 104:186354

AB Title thiohydantoins I [R = H, R1, R2 = (un)substituted Ph, 2-pyridyl; R-R2 = Ph; R = Bu, R1 = R2 = Ph or 2-pyridyl] were prepared as potential hypolipidemic agents with the goal of increased potency over DPTH (I; R = H, R1 = R2 = Ph) itself. I (R = H, R1 = R2 = 2-pyridyl) had slightly better activity than DPTH in lowering liver cholesterol values.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L4 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1972:34167 CAPLUS

DOCUMENT NUMBER: 76:34167

ORIGINAL REFERENCE NO.: 76:5535a,5538a  
 TITLE: Hydantoins, thiohydantoins, glycohydantoins. XXXIII.  
 Reductive uncoupling rearrangements of the  
 retrobenzilic acid type using Lewis acids. VIII.  
 Reactions of 5,5-diarylthiohydantoins with  
 boron trifluoride etherates, boron trifluoride  
 etherate/boron trifluoride mixtures, and gallium  
 bromide  
 AUTHOR(S): Fetter, J.; Nyitrai, J.; Lempert, K.  
 CORPORATE SOURCE: Inst. Org. Chem., Tech. Univ., Budapest, Hung.  
 SOURCE: Tetrahedron (1971), 27(23), 5933-41  
 CODEN: TETRAB; ISSN: 0040-4020  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German

AB 5,5-Diaryldithiohydantoins refluxed with BF<sub>3</sub>-Me<sub>2</sub>O are selectively  
 methylated at the S-2 atom, and (or) suffer rearrangements of the  
 retrobenzilic acid type under simultaneous extrusion of the thioxo S atom  
 from position 4 to yield imidazole derivs. The latter type of reaction  
 was previously effected by AlCl<sub>3</sub>. Derivs. already methylated at the S-2  
 atom are only rearranged, as are also the derivs. of  
 5,5-diphenyl-4-thiohydantoin if a reaction with the latter occurs at all.  
 Derivs. of 5,5-diphenyl-2-thiohydantoin, on the other hand, are only  
 S-methylated by BF<sub>3</sub>-Me<sub>2</sub>O without being rearranged. The selective  
 methylating properties of the BF<sub>3</sub>-Me<sub>2</sub>O reagent may be applied for the  
 smooth preparation of several hitherto difficulty accessible (di)thiohydantoin  
 derivs. GaBr<sub>3</sub> is a catalyst comparable with AlCl<sub>3</sub> for effecting  
 rearrangements of 5,5-diaryl-4-thio- and -dithiohydantoin derivs., its  
 milder properties being in some cases favorable. In the cases where the  
 migratory aptitudes of Ph and p-chlorophenyl groups could be compared the  
 migratory aptitude of the former was always the greater.

=> FIL STNGUIDE

|  |            |         |
|--|------------|---------|
| COST IN U.S. DOLLARS                       | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| FULL ESTIMATED COST                        | 45.52      | 231.62  |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL   |
|  | ENTRY      | SESSION |
| CA SUBSCRIBER PRICE                        | -6.56      | -6.56   |

FILE 'STNGUIDE' ENTERED AT 11:12:02 ON 01 OCT 2009  
 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
 COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: Sep 25, 2009 (20090925/UP).